

## **REMARKS**

This is a full and timely response to the outstanding final Office Action mailed December 4, 2003. Upon entry of the amendments in this response, claims 2 – 6, 8 – 12, 14 and 17 - 23 remain pending. In particular, Applicants have amended claims 17-18, and have canceled claim 16 without prejudice, waiver, or disclaimer. Canceled claim 16 is in addition to earlier canceled claims 1, 7, 13 and 15. Effectively, claims 1, 7, 13, 15 and 16 now stand canceled. Applicants reserve the right to pursue the subject matter of the canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### **A. Claim Objections**

#### **a) Statement of the objections**

The Office Action indicates that claims 16 -19 stand objected to because of dependency informalities. Additionally, the Office Action states “It is unclear how could the first hologram in the first para-electric holographic medium be capable of focussing light to different locations (first and second locations). The specification only gives the support for a single hologram to be switched between a focusing state to focus light to one location and a non-focusing state. The same hologram cannot focus light to two different locations.”

#### **b) Response to the objections**

With reference to the dependency informalities, Applicants have canceled claim 16 without prejudice, waiver, or disclaimer, thereby rendering moot the informality objection related to claim 16. Additionally, claims 17 and 18 have been currently amended to address the Office Action objection, thereby providing accurate dependency for claims 17, 18 , and 19 as well. Applicants respectfully assert that the current amendment to claim 18 automatically corrects the objection to claim 19, which depends from claim 18.

With reference to the objection related to “focusing light to different locations,” (which appears to refer to claim 16), Applicants have canceled claim 16 without prejudice, waiver, or disclaimer, thereby rendering moot this objection.

**B. Rejections Under 35 U.S.C. §103**

**a) Statement of the rejection**

The Office Action states that claims 2-6, 8-11, 12, 14, and 16-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over the patent issued to Popovich (PN. 6,356,366) in view of the patent issued to De Vre et al (PN. 5,640,256)

**b) Response to the rejection**

**Claim 2**

Claim 2 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the patent issued to Popovich, in view of De Vre et al.

Applicant respectfully asserts that the rejection of claim 2 is improper because it does not conform to MPEP guidelines for a rejection under 35 U.S.C. 103(a).

To quote MPEP 706.2(j) *Contents of a 35 U.S.C. 103 Rejection*, in pertinent part:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.  
(Emphasis added)

In relevance to the first part of the above-quoted guideline, the Federal Circuit has declared that "(o)bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so." *ACS Hospital Systems, Inc., v. Montefiore Hospital*, 732 F.2d 1572, 1577; 221 U.S.P.Q. 929, 933 (Fed Cir. 1984).

With reference to Applicants' claim 2, the cited prior art does not expressly or impliedly provide some suggestion or motivation to one of ordinary skill in the art to modify either reference or to combine the cited references, and Applicants note with regret that **the Office Action does not indicate where a teaching or suggestion of the above-quoted motivation may be found in the cited references.**

Furthermore, with reference to that part of the MPEP guideline above that mentions “suggestion or motivation” vis-à-vis “in the knowledge generally available to one of ordinary skill in the art,” Applicants wish to point out that while the Popovich patent is a “light focusing device,” the De Vre patent is for a “dynamic multiple wavelength filter using a stratified volume holographic element,” described in the description of the patent as “specially designed to operate as a dynamic, multiple-wavelength filter.” Applicants respectfully assert that a person of ordinary skill in the art would not be motivated to combine a light focussing device as described in Popovich, to a light filtering device as described in De Vre et al. **Merely the fact that these two devices are optical devices, just as two devices can be electronic devices, is not sufficient motivation for one of ordinary skill in the art to modify or combine the cited two references.**

The MPEP guideline above goes on to state that “the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure.” This guideline is buttressed by the Federal Circuit, which has stated that “(i)t is impermissible, however, to simply engage in hindsight reconstruction of the claimed invention, using the applicant’s structure as a template and selecting elements from references to fill the gaps.” *In re Gorman*, 933 F.2d 982, 987, 18 U.S.P.Q.2d 1885 (1991).

In this connection, Applicants’ appreciate the Office Action assertion that “Popovich teaches that the holographic medium is a dispersed liquid crystal medium wherein the diffractive or active state of the recorded hologram is activated when the applied electrical field is zero. It does not teach explicitly that the holograms are in their active mode when non-zero electrical fields are applied to the holographic medium and it does not explicitly teach that the holographic medium is a para-electric holographic medium.” (Emphasis added). Clearly, the Office Action recognizes that Popovich does not teach at least that part of the Applicants’ claim 2 limitation, describing “a first para-electric holographic medium, said first holographic medium storing a first hologram...” and goes on to assert that “De Vre et al teaches that the recorded holographic grating is activated to have diffractive function when a non-zero electrical field is applied across the holographic medium...” (Emphasis added). Attention is drawn to De Vre et al column 5, lines 7 – 9, which describes their invention as a “SVHOE specifically designed to operate as a dynamic, multiple-wavelength filter.” This filtering action is further defined in column 5, lines 15 – 17, as “Once the holograms are

recorded the SVHOE will filter out the predetermined wavelengths from a reference beam." Applicants have been unable to find in De Vre et al a teaching or suggestion that at least relates to that part of Applicants claim 2, which is for a device that is "operative as a switch" for "selectively directing" light to "either the first location or the second location." Therefore, Applicants respectfully assert that the Office Action rejection of claim 2 under U.S.C. 103(a) is improper because the proposed combination of cited prior art do not expressly or impliedly suggest all of the features/limitations in Applicants' claim 2.

**In the present situation, the Office Action has, unfortunately, substituted its own subjective judgement in place of the actual teachings of the cited prior art references. Consequently, if the proposed rejection is based on at least facts that remain within the personal knowledge of the Examiner, Applicants hereby request an affidavit from the Examiner fully supporting the statement of the rejection in the Office Action in accordance with 37 CFR § 1.104(d)(2).**

In conclusion, the Office Action fails to establish a prima facie case of obviousness as it does not provide a reason to combine the cited prior art, and also does not provide in the combination of cited prior art, a combination that expressly or impliedly suggests all the features/limitations recited in Applicants' claim 2.

Consequently, Applicants request that rejection of claim 2 be withdrawn, and that claim 2 should be then placed in allowance.

**Claims 3-6, 8-11, and 21-23**

Claims 3-6, 8-11, and 21-23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the patent issued to Popovich, in view of De Vre et al. Because independent claim 2 is allowable, claims 3-6, 8-11, and 21-23 that depend directly or indirectly on claim 2, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request that claims 3-6, 8-11, and 21-23 be allowed.

**Claim 12**

Claim 12 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the patent issued to Popovich, in view of De Vre et al.

Applicant respectfully asserts that the rejection of claim 12 is improper because it does not conform to MPEP guidelines for a rejection under 35 U.S.C. 103(a).

To quote MPEP 706.2(j) *Contents of a 35 U.S.C. 103 Rejection*, in pertinent part:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.  
(Emphasis added)

In relevance to the first part of the above-quoted guideline, the Federal Circuit has declared that "(o)bviusness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so." *ACS-Hospital Systems, Inc., v. Montefiore Hospital*, 732 F.2d 1572, 1577; 221 U.S.P.Q. 929, 933 (Fed Cir. 1984).

With reference to Applicants' claim 12, the cited prior art does not expressly or impliedly provide some suggestion or motivation to one of ordinary skill in the art to modify either reference or to combine the cited references, and Applicants note with regret that **the Office Action does not indicate where a teaching or suggestion of the above-quoted motivation may be found in the cited references.**

Furthermore, with reference to that part of the MPEP guideline above that mentions "suggestion or motivation" vis-à-vis "in the knowledge generally available to one of ordinary skill in the art," Applicants wish to point out that while the Popovich patent is a "light focusing device," the De Vre patent is for a "dynamic multiple wavelength filter using a stratified volume holographic element," described in the description of the patent as "specially designed to operate as a dynamic, multiple-wavelength filter." Applicants respectfully assert that a person of ordinary skill in the art would not be motivated to combine a light focussing device as described in Popovich, to a light filtering device as described in De Vre et al. **Merely the fact that these two devices are optical devices, just as two devices can be electronic devices, is not sufficient motivation for one of ordinary skill in the art to modify or combine the cited two references. Also, it will be relevant to point out that the cited Popovich patent does not include any method claims. Therefore, the Office Action is drawing certain conclusions from the specification of the Popovich patent for rejecting Applicants' method claim. Such conclusions are being drawn by the Examiner who asserts that these conclusions would be similarly drawn by persons of ordinary skill in the art.**

The MPEP guideline above goes on to state that “the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure.” This guideline is buttressed by the Federal Circuit, which has stated that “(i)t is impermissible, however, to simply engage in hindsight reconstruction of the claimed invention, using the applicant’s structure as a template and selecting elements from references to fill the gaps.” *In re Gorman*, 933 F.2d 982, 987, 18 U.S.P.Q.2d 1885 (1991).

In this connection, Applicants’ appreciate the Office Action assertion that “Popovich teaches that the holographic medium is a dispersed liquid crystal medium wherein the diffractive or active state of the recorded hologram is activated when the applied electrical field is zero. It does not teach explicitly that the holograms are in their active mode when non-zero electrical fields are applied to the holographic medium and it does not explicitly teach that the holographic medium is a para-electric holographic medium.” (Emphasis added). Clearly, the Office Action recognizes that Popovich does not teach at least that part of the Applicants’ claim 12 limitation, describing “providing a first para-electric holographic medium, the first holographic medium including a first hologram...” and goes on to assert that “De Vre et al teaches that the recorded holographic grating is activated to have diffractive function when a non-zero electrical field is applied across the holographic medium...” (Emphasis added). Attention is drawn to De Vre et al column 5, lines 7 – 9, which describes their invention as a “SVHOE specifically designed to operate as a dynamic, multiple-wavelength filter.” This filtering action is further defined in column 5, lines 15 – 17, as “Once the holograms are recorded the SVHOE will filter out the predetermined wavelengths from a reference beam.” Applicants have been unable to find in De Vre et al a teaching or suggestion that at least relates to that part of Applicants claim 12, which is for a method for providing a first para-electric holographic medium, and for using such a medium for directing light between a first location and a second location.

Therefore, Applicants respectfully assert that the Office Action rejection of claim 12 under U.S.C. 103(a) is improper because the proposed combination of cited prior art do not expressly or impliedly suggest all of the features/limitations in Applicants’ claim 2.

**In the present situation, the Office Action has, unfortunately, substituted its own subjective judgement in place of the actual teachings of the cited prior art references. Consequently, if the proposed rejection is based on at least facts that remain within the**

**personal knowledge of the Examiner, Applicants hereby request an affidavit from the Examiner fully supporting the statement of the rejection in the Office Action in accordance with 37 CFR § 1.104(d)(2).**

In conclusion, the Office Action fails to establish a prima facie case of obviousness as it does not provide a reason to combine the cited prior art, and also does not provide in the combination of cited prior art, a combination that expressly or impliedly suggests all the features/limitations recited in Applicants' claim 12.

Consequently, Applicants request that rejection of claim 12 be withdrawn, and that claim 12 should be then placed in allowance.

**Claims 14, and 17-20**

Claims 14, and 17-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the patent issued to Popovich, in view of De Vre et al. Because independent claim 12 is allowable, claims 14, and 17-20, that depend directly or indirectly on claim 12, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request that claims 14, and 17-20 be allowed.

**Claim 16**

Claim 16 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the patent issued to Popovich, in view of De Vre et al. Since claim 16 has been canceled without prejudice, waiver, or disclaimer, Applicants respectfully assert that this rejection has been rendered moot.

**Prior Art Made of Record**

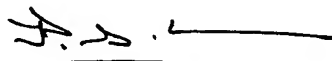
The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.



## CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 2 – 6, 8 – 12, 14 and 17 - 23 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



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Evelyn Sanders  
Signature